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An Analysis of Cognitive and Psychomotor Domains in English Student Textbook of Junior High School

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ABSTRACT

This research was conducted in the textbook of 8th grade Junior High School 2013 revision of the 2017 curriculum. The researcher conducted a textbook analysis based on Anderson and Krathwohl's (2001) taxonomic theory of the cognitive domain and Simpson's (1972) psychomotor domain taxonomy to focus more on its relevance to the material in the textbook. This research aims to investigate the representation of cognitive and psychomotor domains in English textbook for the 8th years of Junior High School students with the Core and Basic Competencies of the 2013 curriculum. This research used a content analysis method based on Anderson and Krathwohl theory. The instrument used to collect data in this research was through data observation and document review. The findings of this research reveal that the contents of the book are in accordance with the 2013 revised curriculum syllabus 2017. The results of the research on the cognitive domain showed that it was 100% relevant to the contents of the syllabus and 92.3% of the Psychomotor domain was relevant to the contents of the syllabus.

1. Introduction

The text books are all books used in the teaching and learning process, including workbooks, modules, and reference books (Sitepu, 2012). A textbook in a particular field of study, which was a standard book written by experts in that field in sync using instructional purposes, supplemented using appropriate pedagogical media that is easy to make understood the user at school or college as reported by Tarigan (1990). Deuri (2012) says that a good textbook should be attractive with natural color combination and makes the material clearly seen. Choosing an appropriate textbook is important because classroom teachers spend much time using textbooks in class (Miekley, 2005).

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A textbook can serve different purposes for teachers: as a core resource, as a source of supplemental material, as an inspiration for classroom activities, even as the curriculum itself (Garinger, 2002). Textbooks provide teachers and students with a common framework, however, using them from cover to cover, for meeting students' needs, is not enough (Ghorbani, 2011).

Competencies in the 2013 curriculum are called Core and Basic Competence. Core competence is the operationalization of competency standards. Then, the core competencies are broken down as basic competencies. There were four core competencies in the 2013 curriculum, core competency 1 being the domain of religion, core competency 2 as the affective domain, third core competency as the cognitive domain, and four core competencies as the psychomotor domain (Priyatni, 2014).

According to Cheng, Hung, and Chiech (2011), textbook assessment is basically an easy analytic matching process: matching needs with available solutions. There were several reasons for look at the textbooks. One of the first most important reasons was that the introduction of new textbooks has become a necessity. Then the second was that the textbook that is used certainly has basic limitations that must be implemented. And the third is that teacher professionalism needs to be improved and developed through development activities, one of which is in textbook evaluation activities as reported by Wahab (2013). It allowed teachers to take advantage of the strengths they already have optimally, and are able to find parts of them that are weak and then improve those parts by changing or adapting material from other books. Moreover, learning and evaluation in textbooks is not only to enable teachers to mature themselves, but they are also assisted in mastering useful interpretations of the material. There are other opinions about students also having their diversity, so there are many differences between them, therefore, there was not textbook that fits all the diversity (types) of these students. Of course this is an official problem for teachers to be able to study, create and familiarize materials that are appropriate in the class specifically for them (Azizifar & Baghelani, 2014).

There were three components that must be understood by students in the teaching and learning process, namely the affective, cognitive and psychomotor domains as reported by Amri (2013). The components seen in the textbook are cognitive and psychomotor domains. in this case, a researcher have reviewed the importance of the material (content) in a book entitled *When English Rings a Bell Revision 2017 With Core Curriculum and Basic Competence 2013 on the Cognitive and Psychomotor domain*. Researchers have reviewed the importance of viewing content in a book. Many researchers have conducted research on textbooks, among them are Ratnasari (2014), Salsabil (2014), Kamila (2014), Fitriyani (2013).

According to Micklich (2011), cognitive domains are implemented in learning activities, such as remembering, thinking, solving problems, and creating or producing something. Cognitive domain related to the learner's thinking. This objective emphasizes remembering or reproducing something which has been

learned. Cognitive objectives vary from simple recall of material learned to highly original and creative ways of combining and synthesizing new ideas and materials.” The level of cognitive domains can be measured through class discussion, compiling lesson notes, getting tutorial activities, using teaching materials in the form of charts, using Power point slides, giving authentic examples, provision of quizzes, project/problem based learnings, procurement of seminars, giving questions which answers are in the form of explanations or descriptions (Kasilingam et. al, 2014).

According to Hoover and Giambatista (2009), psychomotor domain increases the interest of learning, - where this domain is a dimension that can continuously activate a learning environment that has high intensity to improve learning outcomes. This domain can be applied in giving assignments to students.

Based on the researcher's experience in observing the teaching and learning process at MTsN 1 Kampar, there is a gap between cognitive and psychomotor aspects. The teacher is more focused on providing theory rather than putting the theory into practice, so that students are only motivated to continue to record all the theories on the board rather than directly practicing the theory being studied.

The purpose of this research is to find cognitive and psychomotor domains in textbooks. It is hoped that it will help teachers and students find good books. This study will answer the question "What is the relevance of the book material for class VIII SMP students and the core of the 2013 basic competency curriculum in the cognitive domains? And what is the relevance of the book material for class VIII SMP students and the core of the 2013 basic competency curriculum in the psychomotor domains?".

2. Methodology

The method used in this research is descriptive qualitative content analysis. Content analysis is a method to analyze human communication in indirect way. It means that it analyze human written contents of a communication such as textbook, essay, newspaper, novels, magazine, article, songs, and many others. Hence, this study was categorized as descriptive qualitative content analysis as reported by Fraenkel and Wallen (2006). Content analysis is a research tool focused on the actual content and internal features of media. It is used to determine the presence of certain words, concepts, themes, phrases, characters, or sentences within texts or sets of texts and to quantify this presence in an objective manner (Al-Ghazo and Smadi, 2013)

The purpose of this research is to find out the importance of the material contained in the 2013 core and basic competency textbook curriculum, examined through cognitive and psychomotor aspects. Data collection techniques in this study used two ways, namely observation and document review. Observations were made to collect research data. First, the researcher must read the entire contents of the textbook to be studied, then the second researcher will make a

comparison between the textbook material and the 2013 cognitive component curriculum. Then the next step, the researcher will match the textbook content with the 2013 psychomotor component curriculum, and the researcher will provide an explanation of these documents in written form such as books, publications, journals and 2013 curriculum regulations.

For the observation tool, the researcher used the observation checklist table. The observation checklist has two types, the first is the observation checklist which aims to analyze the importance of the cognitive dimensions of the book on the essential competencies of the three 2013 English curriculum (Table 1). Researcher uses the BSNP (Badan Standar Nasional Pendidikan) checklist as research instrument (Table 2). Then the second observation checklist aims to see the importance of the four curricula in the 2013 English book on the psychomotor component of basic competence.

Table 1. Observation Checklist of Cognitive Domain.

Basic Competence Four (Cognitive Domain)		When English Rings a Bell					Notes
Basic Competence	Materials (Sub-Basic Competence)	Page	Example of materials	Relevance to Basic Competence			
				Relevant	Partly Relevant	Irrelevant	

Table 2. Observation Checklist of Psychomotor Domain.

Basic Competence Four (Psychomotor Domain)		When English Rings a Bell					Notes
Basic Competence	Materials (Sub-Basic Competence)	Page	Example of materials	Relevance to Basic Competence			
				Relevant	Partly Relevant	Irrelevant	

The data analysis process carried out in this study used several steps, including the following:

1. Making cognitive aspects into the form of material groups in textbooks based on core competence three and core competence for as a psychomotor aspect.
2. Collect and enter data from data sources into a checklist table to compare the material needed in the 2013 curriculum with the material in the textbook.
3. Search, find and record the differences and similarities between the material submitted in the 2013 curriculum and the material contained in the textbook according to core and basic competencies as well as cognitive and psychomotor learning areas.

Correcting material in the textbook to evaluate and assess the importance of core and basic competencies in the 2013 curriculum.

3. Results and Discussion

From data analysis using the theory of Anderson and Krathwal, the researcher found that the material contained in the 8th grade English book matched the contents of the 2013 curriculum syllabus. By using the checklist method, the researcher can describe the material contained in the textbook based on the core competencies of the three 2013 curricula and find its suitability for learning in the cognitive aspect and continue the findings in his research. The results of the suitability of the textbook contents with the three core competencies were concluded by the researcher in the form of a table 3, as follows:

Table 3. Conformity of Textbook Material with Cognitive Domain

The Relevance	The Basic Competency Three
Relevant	Basic Competence 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, 3.9, 3.10, 3.11, 3.12, 3.13
Partly Relevant	Basic Competence: -
Irrelevant	Basic Competence: -

The above table shows that in the three core competencies there are all very important materials. This material can be used to fulfill subject objectives by linking sub-basic competency material, so that everything that is expected to be achieved by students such as language features and social functions can be fulfilled.

By using the four core competencies of the 2013 curriculum as a list of observations above, researchers can describe in detail the material contained in the book and weigh its suitability with aspects of psychomotor learning. Then the researcher can continue the results of his research regarding the suitability of the contents of the textbook with the four core competencies which are summarized into the following table 4:

Table 4. Conformity of Textbook Material with Psychomotor Domain.

The Relevance	The Basic Competency Four
Relevant	Basic Competence 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 4.10, 4.11, 4.12, 4.13
Partly Relevant	-
Irrelevant	Basic Competence 4.1

The above table shows that many materials are considered important but are not in accordance with the four core competencies. The purpose of using the material is to build something with their imagination through applying the material to basic skills that will help students to use their psychomotor skills. Even though there is no specific meaning in the material, core competencies still cannot guide students to use their psychomotor skills in making different creativity, so that the objectives of these core competencies have not met all the goals.

In this research, the researcher use the new version of Bloom's taxonomy conducted by Anderson as the research theory. There are specific action verbs which show the cognitive process. Here, the researcher has made a table that divided the verbs according to the cognitive domain categories (Table 5).

Table 5. The cognitive domain action verbs

Cognitive Domain Category	Action Verb
1. Remember	Recognize, identify, recall, retrieve.
2. Understand	Interpret, classify, paraphrase, represent, translate, exemplify, illustrate, instantiate, categorize, subsume, summarize, abstract, generalize, infer, conclude, extrapolate, interpolate, predict, compare, contrast, map, match, explain, construct, model.
3. Apply	Execute, carry out, implement, use.
4. Analyze	Differentiate, discriminate, distinguish, focus, select, organize, find coherence integrate, outline, pars, structure, attribute, deconstruct.
5. Evaluate	Check, coordinate, detect, monitor, test, critic, judge.
6. Create	Generate, hypothesize, plan, design, produce, construct.

Psychomotor domain relates to the learners skill, includes physical movement, coordination, and the use of motoric creativity as reported by Anderson and Simpson (2001). There are six levels of psychomotor domain: Perception, Set, Guided Response, Mechanism, Complex Overt Response, Adaptation, and Origination. Some activities or rules in this book are not exactly the same as the original action verbs stated in Anderson and Krathwohl's (2001) theory. Therefore, the researcher must find a word with the same meaning from a textbook activity or regulation as the action verb stated in the theory.

Based on these findings, the researcher conclude that the textbook covers about 100 percent of the material relevant to the contents of the syllabus and 92.3 percent of the Psychomotor domains relevant to the contents of the syllabus and is able to meet the topic's objectives, language features, and social functions of the ideal material that students want to achieve.

Table 6. Result of the relevance between English student book and the syllabus of 2013 curriculum in terms of cognitive domain.

Cognitive Domain	
Relevant	100%
Partly Relevant	0%
Irrelevant	0%

Table 7. Result of the relevance between English student book and the syllabus of 2013 curriculum in terms of Psychomotor domain.

Psychomotor Domain	
Relevant	92.3%
Partly Relevant	0%
Irrelevant	7.7%

4. Conclusion

After analyzing the data of materials of the textbook, the researcher conclude that in terms of cognitive domain, there are 13 materials in the book which were relevant or about 100 %, 0 materials which are partly relevant or about 0%, and 0 materials which are irrelevant or about 0%. This concerns how important the material written in the student's English book "When English Rings a Bell" is for core and basic competencies in the three materials written in the syllabus of English subjects for junior high school graduates. From this explanation, the researchers concluded that in order to meet the subject objectives, language characteristics and social functions of the perfect material and wanted to be achieved by all students, they could apply the material to cognitive and psychomotor aspects because 100 percent of the material in the textbook covered all the needs what students want to achieve.

In term of Psychomotor domain, there were 12 materials in books that are relevant or about 92.3 percent, 0 partially relevant material or about 0 percent, and 1 material that is not significant or about 7.7 percent. From the explanation of the results of this study, the researcher concluded that the textbook only covered about 92.3 percent of the material related to psychomotor aspects and was able to fulfill the goal of guiding students to use their psychomotor skills to construct something with their imagination that students had to achieve according to the syllabus.

It can be said that the success rate of the teaching and learning process cannot be determined only by the ability of the teacher to provide material and the ability of students to understand the material, however, the success of the teaching and learning process also adheres to the quality of the teaching materials used in schools. In fact, researchers have explained in the previous chapter that assessing, correcting and evaluating books used as study materials is very important, because basically, the main source of material for the 2013 curriculum was student books released by the Indonesian Ministry of Education and Culture. So that the researchers strongly agree to describe and then do a review on the English language book for junior high school graduates, namely entitled "When English Rings a Bell"

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